ossification, may be added). The angular, splenial, and all the other elements of the reptilian jaw have vanished, though the numerous points from which the mammalian dentary ossifies is a reminiscence of a former state of affairs; and here again an occasional continuance of the separation is preserved, as the case observed by Professor Albrecht of a separate supra-angular "bone in a Rorqual attests. Among other reptilian bones that are not to be found in the mammalian skull are the basipterygoids, quadrato-jugal, and supratemporal. A *few* of these bones, however, though no longer traceable in the adult skull save in cases of what we term abnormalities, do find their representatives in the foetal skull Professor Parker, for example, has described a supra-orbital in the embryo Hedgehog; a supratemporal also appears to be occasionally independent.

In the mode of the articulation of the lower jaw to the skull the Mammalia apparently, perhaps really, differ from other Vertebrates. In the Amphibia and Beptilia, with which groups alone any comparisons are profitable, the lower jaw articulates by means of a quadrate bone, which may be movably or firmly attached to the skull. In the mammals the articulation of the lower jaw is with the squainosaL The nature of this articulation is one of the most debated points in comparative anatomy. Seeing that Professor Kangsley[1] in the most recent contribution to the subject quotes no less than fifty-two different views, many of which are more or less convergent, it will be obvious that *in* a work like the present the matter cannot be treated exhaustively. As, however, Professor Eangsley justly says that ** no single bone occupies a more important position in the discussion of the origin of the Mammalia than does the quadrate," and with equal justice adds that " upon the answer given as to its fate in this group depends, in large measure, the broader problem of the phylogeny of the Mammalia/' it becomes, or indeed has long been, a matter which cannot be ignored in any work dealing with the mammals. A simple view, due to the late Dr. Baur and to Professor Dollo, commends itself at first

sight as meeting the case. The last-named author holds, or held, that in all the higher Vertebrates it is at least on *a priori* grounds likely that two such characteristically vertebrate features as the lower jaw and the chain of bones bringing the outer world

[1] ***Tufts*** *College Studies, 'No. &>* 1900,